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**STUDY ON THE PROBLEMS THAT INFLUENCE THE SUCCESS CONTRACTOR
IN KUANTAN**

SUHAIZA BINTI SUBRI

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ABSTRACT

The construction industry was sector that contributed to the country economy. A building project when implemented involves many stages and various parties. All projects normally planned to be completed on schedule and within the expected cost and quality. The failure of the contractor to complete projects that result in abandoned, particularly involving government projects particularly mega projects. Therefore, the contractors should be aware of the problem and the factors that influence success in the completion of the construction project. The objectives of the study are to identify the main problems that influence the success contractor in completing the construction, to determine the major factors that influence the successful completion of construction project and to analyses the impact of the problems in construction projects to contractors. A total of 66 sets of questionnaires were distributed to the contractor and 42 completed questionnaires have been received. The data is analyzed using Relative Index (RI). The main problems that influence the success contractor in completing the construction are problem in financial, time, cost, material and problems occur during construction. The major factors that influence the successful completion of construction project are contractor, project team and client. The impact of the problems in construction projects to contractors are delay in project completion, increased cost, cash flow and financial disruption.

ABSTRAK

Industri pembinaan merupakan antara sektor yang menyumbang ekonomi negara. Sebuah projek bangunan yang telah siap melibatkan banyak peringkat dan pelbagai pihak. Semua projek yang di rancang juga semestinya ingin disiapkan mengikut jadual yang dirancang dan dalam kos yang ditetapkan serta kualiti yang diharapkan. Kegagalan kontraktor dalam menyiapkan projek akan mengakibatkan projek terbengkalai, terutamanya yang melibatkan projek-projek kerajaan khususnya projek mega. Oleh itu, kontraktor perlu sedar masalah dan faktor-faktor yang mempengaruhi kejayaan dalam menyiapkan projek pembinaan. Kajian ini telah dijalankan dengan objektif untuk mengenal pasti masalah utama yang mempengaruhi kejayaan kontraktor dalam menyiapkan pembinaan, menentukan faktor-faktor yang mempengaruhi kejayaan kontraktor dan menganalisis kesan daripada masalah tersebut kepada kontraktor. Sebanyak 66 set soal selidik telah diedarkan dan 42 borang kaji selidik telah diterima. Data dianalisis menggunakan *Relative Index (RI)*. Masalah utama yang mempengaruhi kejayaan kontraktor dalam menyiapkan pembinaan adalah kewangan, masa, kos, bahan dan masalah berlaku semasa pembinaan. Faktor utama yang mempengaruhi kejayaan menyiapkan projek pembinaan adalah kontraktor, pasukan projek dan klien. Kesan dari masalah dalam projek pembinaan kepada kontraktor adalah kelewatan penyiapan projek, kos meningkat, aliran tunai dan gangguan kewangan.

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LIST OF SYMBOLS

| | |
|-----------|---|
| RI | Relative Index |
| Wi | The Weight Assigned to i^{th} Response (1, 2,3,4,5 respectively) |
| Xi | Frequency of the i^{th} Response Given as Percentage of the Total Responses for Each Factor. |

LIST OF ABBREVIATIONS

| | |
|-------------|--|
| GTP | Government Transformation Programme |
| CIDB | Construction Industry Development Board |

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

The Malaysian construction industry plays a key role in contributing to the country's economic development process which is both growth-initiating and growth dependent (Abdullah, 2004). The industry establishes buildings and infrastructure works required for socio economic development which contribute to the overall economic growth. Accordingly, various mega projects was planned in the 10th Malaysian Plan (10 MP), which implemented through the Government Transformation Programme (GTP).

The concept of a successful construction project is wide in scope and project success means different things to different people. Some project managers consider timely completion, cost of total expenditure of project as well as the quality of the construction; others suggest that success is something which is more complex and more than the three aspects. Atkinson (1999) considers the criteria of cost, time and quality as temporary criteria measurement for measuring efficiency during the delivery stage. Dweiri (2006) has shared Atkinson's opinion and looked at the basic criteria as internal measures of project management efficiency. Shenhar et al. (2001) have considered the criteria of cost; time; and quality, as a measurement of success in the short run when time to market is critical.

There are several parties who are directly involved in the construction industry, such as client, consultant, contractor, supplier and local authorities. Most of the construction project greatly dependent with the contractor's involvement. Since the

contractor is the most important party in construction project, they can cause a problem to the construction project itself. The successful of the construction project is mostly depends on the ability and efficiency of the contractor in managing the construction work on site. Success of a construction project depends on the contractor's efficiency to manage all the aspect of construction works. The weak project management can cause a problem to contractor. Aspect of management is like source of material management, cost, labour, time and machinery (Rafsyamir, 2004).

There are various types of efforts that have been carried out to increase the quality of the construction project management so that project delivery system can be increased. For example, government had set up one special agency to monitor and coordinate construction activity namely Construction Industry Development Board Malaysia (CIDB). Contractor which carried out the construction jobs need to register with CIDB Malaysia under one of the categories namely building work, engineering work and mechanical work and electrical.

Apart from that, Pusat Perkhidmatan Kontraktor (PKK) is the first government agency which started mandated to carry out service in contractor affairs. There are three (3) stages of contractor's registration under PKK which are categories capacity tendered seven head portion and various sub head. With this registration system, registered contractor can be ensured from time to time and apart from that, PKK also implement the policy improve the service strategies so that local building entrepreneur can be more viable.

Besides managing the contractor registration affairs, effort to stabilize image of construction industry also have been practiced. To boost country's construction industry to be more dynamic and can compete in global market, a strategic plan proposed by CIDB was approved. The proposal is about to plan the strategic ways to develop the construction industry by healthier, and effectively competing. Under that plan, this construction industry can use state-of-the-art technology and the latest method. Apart from that, government have

established various committees in order to make sure the project implemented under 10th Malaysian Plan (10 MP) can be run smoothly and successfully.

This committee which comprises of Ministry of PWD, entrepreneurial development and cooperative and Ministry of Finance will monitor the implementation of the largest project which involves the public interest and if any problems occur, this cabinet committee will solve the problem together (Bemama, 2007).

1.2 PROBLEM STATEMENT

To realize the dream and the hope of achieving developed nation status, achievements in the construction industry should be encouraging and should changed to positive. We do not want to see the failure of the contractor to complete projects that result in abandoned and lost many parties, particularly involving government projects particularly mega projects. Therefore, the contractors should be aware of the problem and the factors that influence success in the completion of the construction project.

Some of the criteria for success and model categories have been introduced in the past decades to identify issues in the success of the project. However, most of these models have failed in ensuring the success criteria in line with the company's success in the long term. Therefore, a framework to identify successful contractor for the construction project Malaysia should be reviewed. If the construction manager can assess success, they will be able to assess the overall strength of each project, and identify the problems that are in the project on time now so they will be able to reach and heading towards success (Samiaah et al., 2010).

A building project when implemented involves many stages and various parties. All projects normally planned to be completed on schedule and within the expected cost and quality. Therefore, once the project is not run smoothly due to the disruption or problems, the parties involved should find solution immediately. For projects that have been

successfully completed there must be factors that influence the success. To achieve the end results of having projects done with the least cost, shortest time and best quality, the contractor performance should be monitored by both the owner and the contractor to benefit all the parties involved. It is very important for contractors to adopt more effective and comprehensive evaluating methods to identify problems and innovate ways of delivering successful projects.

Therefore, once the project is not run smoothly due to the disruption or problems, the parties involved should find solution immediately. For projects that have been successfully completed there must be factors that influence the success. These studies have been conducted with the objectives to identify the main problems that influence the success contractor in completing the construction, to determine the major factors that influence the successful completion of construction project and analyses the impact of problems on construction projects to contractor.

1.3 RESEARCH OBJECTIVE

This study focuses on the problems actually affecting the successful delivery of construction projects with the aim to improve performance and achievement in the construction project. To support the main objective, the following are some specific objectives in this study:

- i. Identify the main problems that influence the success contractor in completing the construction.
- ii. To determine the major factors that influences the successful completion of construction project.
- iii. To analyses the impact of the problems on construction projects to contractor.

1.4 SCOPE OF STUDY

The scope of this study covers the problems that influence the success contractor in completing the construction, the factors and challenges faced by the contractor. However, the scope of this study is limited to Kuantan. The Questionnaires will be sent to 66 respondents consist of contractors from grade 5 until grade 7 in Kuantan state who are registered under the Construction Industry Development Board (CIDB) of Malaysia. The questionnaire will be distribute to the management team include project manager, site engineer, supervisor and others.

1.5 EXPECTED OUTCOME

The findings of this project are believed to be beneficial to the parties involved in the construction industry, particularly in the aspect of main problems that influence the success contractor and the factor that influence the successful completion of construction project.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

Building construction is considered to be an essential element of the construction industry in Malaysia, and it forms about 67.6% of the overall construction work (CIDB, 2008). The new global challenges thus call for greater focus on building capabilities. Building companies cannot solely focus on short-term goals as future goals of the business may be neglected. Making sound strategic decisions require new measures in evaluating the success of building projects that will support contractors and managers to enhance their competitive edge. It is very important for contractors to adopt more effective and comprehensive evaluating methods to identify problems and innovate ways of delivering successful projects.

Another significant study conducted by Atkinson (1999), which divided the project into three stages. In view of the Figure 2.1, which illustrates these stages, it can be seen that the first stage was the delivery stage. This stage focused upon the task of project management, and doing things right. The next stage was the post delivery that was concerned with the system, and measured the benefits to the resultant organisation (direct benefits). The third stage was the post delivery, which measured the benefits to a wider stakeholder community (indirect benefits).

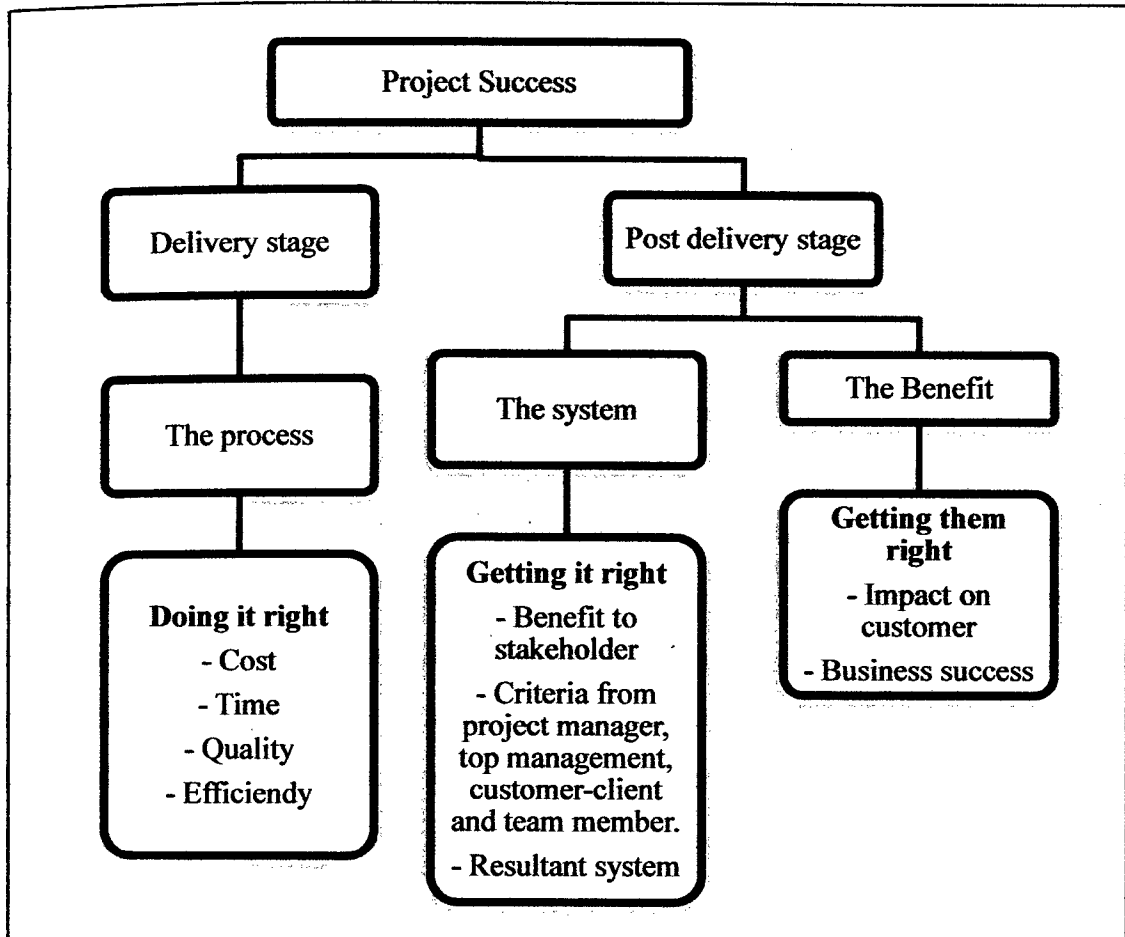


Figure 2.1: Measuring project success (Atkinson, 1990)

Atkinson (1999), Shenhar et al. (1997) and Shenhar et al. (2001) have made significant contributions to knowledge management and moved away from the traditional way in measuring the success by focusing only on time, budget, and quality. Yet these studies have addressed projects of various industries rather than focused on construction projects. Since the success criteria will vary from project to project (Hannola et al., 2009); those measures do not address the issue of success of building projects.

2.2 SUCCESS CRITERIA OF CONSTRUCTIONS PROJECTS

Within the construction industry, the concept of project success has remained ambiguously defined (Brown and Adams, 2000; Chan and Chan, 2004). However, there are many attempts to explore the concept of success and to develop different frameworks for measuring the success of construction projects. For example, Lim and Mohamed (1999) have looked at construction project success from the macro and micro viewpoints. The micro viewpoint related to the project construction phase, where the project goals like time, cost, performance, quality, safety were taken into consideration. While the macro viewpoint dealt with the users and stakeholders' satisfaction. Lim and Mohamed (1999) have highlighted the importance of completion and satisfaction criteria; however, they have failed to take into account the viewpoint of strategic goals of the contraction company.

Some researchers have merged the strategic impact of project within other dimensions of project success. For example, Baccarini (1999) has separated project success into two components, as shown in Figure 2.2. The first one is project management success, which includes: the basic criteria; project management process; and stakeholders' satisfaction. The second component was product success, which comprised of owners' strategy; user's satisfaction; profitability and market share. However, he has not distinguished the strategic dimension of project success; he embodied it within product success.

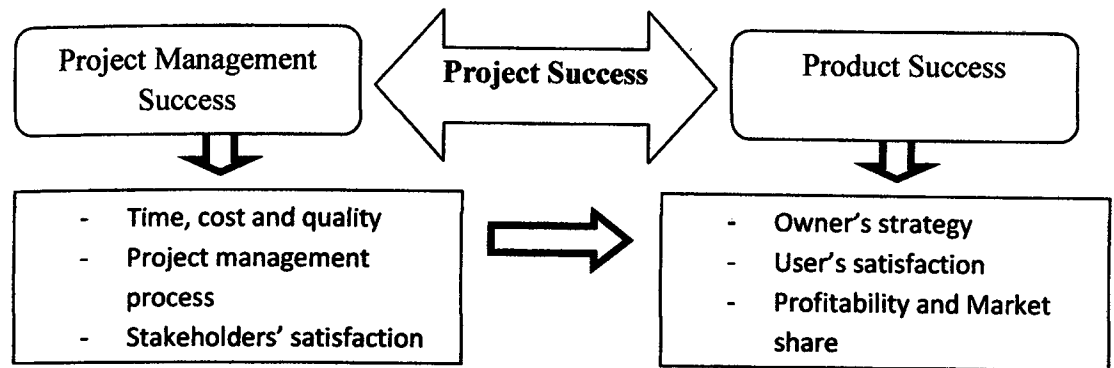


Figure 2.2: Project success components (Baccarini, 1999)

Chan and Chan (2004) have proposed two groups of key performance indicators for construction project success. The first group was objective measures, which were the issues of time; cost; safety; and environment. The second group was subjective measures, which comprised quality; functionality; and satisfaction of different project participants. They have tied the performance indicators with success criteria, but those indicators were limited to operational and tactical levels and excluded the strategic level of the project. Similarly, Ahadzie et al. (2008) have introduced success criteria for mass house building projects, which included: environmental-impact; customer's satisfaction; quality and overall cost; and time. These criteria also failed to target the strategic objectives of the contracting organisation.

Blindenbach-Driessen (2006) has carried out a study to evaluate the performance of development projects. She has proposed an interesting model that consisted of two constructs, as shown in Figure 2.3. The first one was project success, which related to the development process of new products and services. The second construct was market success, which covered the commercial outcome of a development project. The proposed model was comprehensive and she has contributed a significant knowledge; however she failed to distinguish between project success and project management success. As a matter of fact, the distinction between project success and project management success is important (Cooke-Davies, 2002).

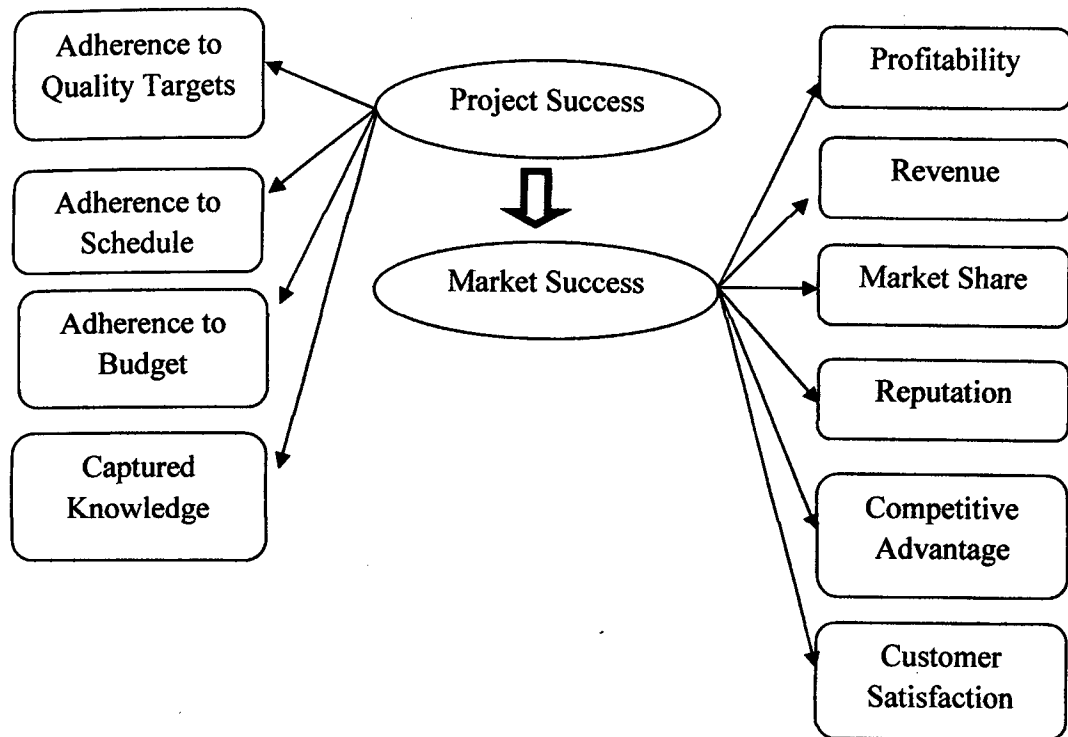


Figure 2.3: Theoretical performance model (Blindenbach-Driessen, 2006)

The importance of this distinction can be realized when the success of project management does not result in the success of the project if the expected benefits are not achieved (Wideman, 2009). Furthermore, if a project achieved project success without project management success, this indicated that the project management failure was of little significance in the longer term (Munns and Bjeirmi, 1996) and there was the inevitable conclusion that even greater benefits could be realized (Cooke-Davies, 2004). On the other hand, if project management success was achieved without project success; then the project failed because of other reasons, such as: it had not been used as was initially intended, could not be marketed, or did not get returns on the client investment (Munns and Bjeirmi, 1996). In other words, the owner or sponsor has failed to obtain the benefits that might be provided by the designed project (Cooke-Davies, 2004).

2.3 PROJECT SUCCESS CRITERIA FROM OWNER, DESIGNER, AND CONTRACTOR ASPECT

Success criteria or a person's definition of success as it relates to a building often changes from project to project depending on participants, scope of services, project size, sophistication of the owner related to the design of facilities, technological implications, and a variety of other factors. On the other hand, common threads relating to success criteria often develop not only with an individual project but across the industry as we relate success to the perceptions and expectations of the owner, designer, or contractor. Differences in a person's definition of success are often very evident.

To orient the researchers, lists of typical success criteria for the owner, designer, and contractor were developed. Each list was developed by the writers' reviewing the literature and then brainstorming and discussing success criteria for the owners, designers, and contractors represented on the project team. An unprioritized summary of these success criteria follows. Owner's criteria for measuring success: on schedule; on budget; function for intended use (satisfy users and customers); end result as envisioned; quality (workmanship, products); aesthetically pleasing; return on investment (responsiveness to audiences); building must be marketable (image and financial); and minimize aggravation in producing a building.

Designer's criteria for measuring success: satisfied client (obtain or develop the potential to obtain repeat work); quality architectural product; met design fee and profit goal; professional staff fulfillment (gain experience, learn new skills); met project budget and schedule; marketable product/ process (selling tool, reputation with peers and clients); minimal construction problems (easy to operate, constructible design) and well defined scope of work.

Contractor's criteria for measuring success: meet schedule (preconstruction, construction, design); profit; under budget (savings obtained for owner and/or contractor); quality specification met or exceeded; no claims (owners, subcontractors); safety; client

satisfaction (personal relationships); good subcontractor buy out; good direct communication (expectations of all parties clearly defined); and minimal or no surprises during the project (Muhammad Saqib et al., 2008).

2.3.1 Common Criteria

While many criteria items or viewpoints are similar, there are several distinctions that relate directly to the parties involved and the type of business services they provide. For example, a priority item and one that appears in all three lists (designer, owner, and contractor) in some form is the financial reality of doing business. The owner wants the project completed on time and on budget, and the designer and contractor both expect to meet certain profit or fee goals. All three viewpoints also recognize the absence of any legal claims or proceedings on a project as a desirable outcome. In other words, this is a major criteria for measuring success. Another common thread among the three groups involves meeting an appropriate schedule as a way of measuring or determining if a project was successful (Muhammad Saqib et al., 2008).

2.3.2 Unique Criteria

It is also evident that there are some unique factors associated with each of the three groups. The designer for instance is looking for a project that will increase the level of professional development and professional satisfaction among his employees. Safety is a high-priority issue for the contractor that would not normally be an issue with the other two groups, because their employees are at much less risk during the design or operations of a building than the contractor's workers are during the construction of a building. An owner is extremely interested in knowing that the building project functions properly for the intended use and is free from long-term defects or lingering maintenance problems (Muhammad Saqib et al., 2008).

2.4 THE PROBLEMS THAT INFLUENCE THE SUCCESS CONTRACTOR IN COMPLETING THE CONSTRUCTION

Problems in a construction project are often a challenge to the parties involved in the construction (owners, contractors and subcontractor). It is a global problem because other countries involved in the construction industry is also experiencing the same problem. Therefore, it depending on the parties involved in construction to handle because it, can have an impact on project delays. According to a study done by Murali and Soon (2006), there were some problems in the construction industry in Malaysia that have influenced the success of the project. Here are the problems that have been identified:

2.4.1 Contractor's Improper Planning

Local contractors often fail to come out with a practical and workable “work program” at the initial planning stage. This failure is interrelated with lack of systematic site management and inadequate contractor's experience towards the projects. The consultant only checks and reviews the work program submitted by the contractors based on experience and intuitive judgment. Improper planning at the initial stages of a project manifests throughout the project and causes delays at various stages. Only a project that is well planned can be well executed (Murali and Soon, 2006).

2.4.2 Contractor's Poor Site Management

Contractor's poor site management is one of the most significant causes in causing the construction delays. The results of this research indicate that local contractors face deficiency in site planning, implementation and controls. A poor site management results in delays in responding to the issues that arise at the site and causes negative impact on the overall work progress (Murali and Soon, 2006).